U.S. Department
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**Federal Aviation
Administration**

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Regulatory Support Division

ADVISORY CIRCULAR
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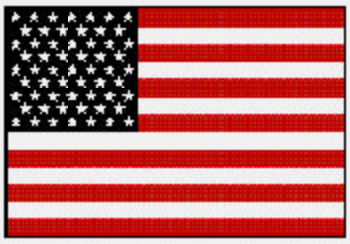
AVIATION MAINTENANCE ALERTS



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**JULY
2003**

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20590

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

UNAPPROVED PARTS NOTIFICATION

UPN NO. 2001-00274

UNAPPROVED PARTS
NOTIFICATION

SUSPECTED UNAPPROVED PARTS PROGRAM OFFICE, AVR-20
13873 PARK CENTER ROAD, SUITE 165
HERNDON, VA 20171

No. 2001-00274
June 17, 2003

UPNs are posted on the Internet at http://www.faa.gov/avr/sups/upn.cfm

Published by: FAA, AIR-140, P.O. Box 26460, Oklahoma City, OK 73125

AFFECTED PARTS
Turbochargers.

PURPOSE
The purpose of this notification is to advise all aircraft owners, operators, manufacturers, maintenance organizations, parts suppliers, and distributors regarding improper maintenance performed on Garrett and RayJay/Roto-Master turbochargers.

BACKGROUND
A joint suspected unapproved parts investigation conducted by the Federal Aviation Administration (FAA), Department of Transportation – Office of Inspector General , and the Federal Bureau of Investigation revealed that Thunderbird Accessories, Inc. (Thunderbird), improperly maintained and approved for return to service Garrett and RayJay/Roto-Master turbochargers. Thunderbird, located at 5406 N. Rockwell, Bethany, OK 73008, previously held Air Agency Certificate No. IC2R893K.

Evidence revealed that Thunderbird had failed to accomplish maintenance in accordance with the manufacturers' maintenance manuals; Instructions for Continued Airworthiness; or other methods,

techniques, and practices acceptable to the FAA. Discrepancies noted included stop-drilling beyond allowable limits on exhaust housings, and the installation of unapproved bolts and bearings that were not designed for extreme heat applications. The FAA has been unable to determine all models and serial numbers affected; therefore, all turbochargers approved for return to service by Thunderbird should be considered suspect.

RECOMMENDATIONS

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, parts suppliers, and distributors should inspect their aircraft, aircraft records, and/or parts inventories for turbochargers approved for return to service by Thunderbird. Suspect turbochargers installed on aircraft should be inspected for conformity to type design. If any are found in existing stock, it is recommended that the turbochargers be quarantined to prevent installation until a determination can be made regarding each part's eligibility for installation.

FURTHER INFORMATION

Further information concerning this investigation and guidance regarding the above-referenced turbochargers may be obtained from the FAA Flight Standards District Office (FSDO) given below. In addition to the above recommendations, the FAA would appreciate any information concerning the discovery of the turbochargers, the means used to identify the source, and the action taken to remove any turbocharger from service.

This notice originated from the Oklahoma City FSDO, 1300 S. Meridian Blvd., Suite 601, Oklahoma City, OK 73108, telephone (405) 951-4200, fax (405) 951-4282; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 668-3720, fax (703) 481-3002.

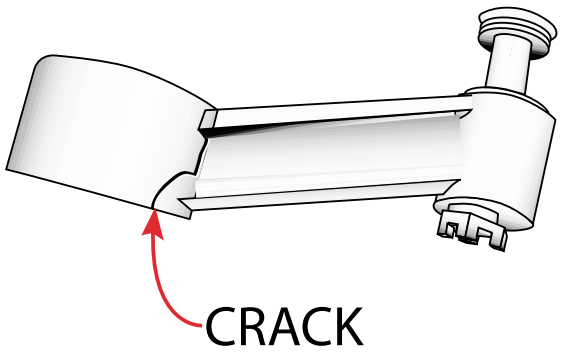
AIRPLANES

BEECH

Beech; Model 95; Travel Air; Nose Landing Gear Actuator Arm; ATA 3230

During an afterlanding rollout, the nose gear collapsed.

The technician discovered the nose landing gear actuator arm (P/N 35-825174), which attaches to the landing gear transmission box, had cracked. The crack allowed the arm to flex and rotate on the splines of the transmission shaft, which kept the push-pull tube to the nose gear in the forward position. (Refer to the illustration.) This actuator arm is also installed on several Beech aircraft models.



The submitter suspects that fatigue caused the actuator arm to crack. He recommends removing the actuator arm at the next inspection and inspecting the area using 10x-magnifier.

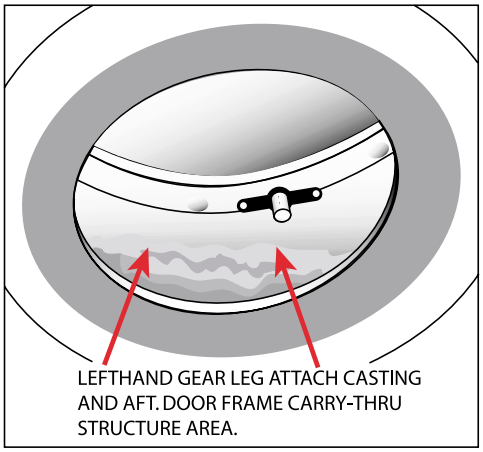
Part total time unknown.

CESSNA

Cessna; Model 182S; Skylane; Carpet; ATA 2500

During a phase inspection, the technician discovered the flame retardant (fire block) on the aft carpet (P/N 0715093-2) was breaking down and coming loose.

The technician discovered the fire block had settled into the overlapping seams of the floorboard and the floorboard structure. He also found signs of corrosion in the areas where the fire block had accumulated. (Refer to the illustration.)



The submitter stated that if this defect was left unattended, it would cause further metal deterioration.

Part total time-1,790 hours.

Cessna; Model 210 Series; Landing Gear Down Hydraulic Line; ATA 3230

The Airframe and Propulsion & Services (ACE-118W) of the Wichita Aircraft Certification Office (ACO), located in Wichita, Kansas, submitted the following article. *(The article is published as it was received.)*

> Service Difficulty Reports are being received regarding leaks in the landing gear down hydraulic line in the cockpit on Cessna 210 aircraft. In one case this resulted in an in-flight loss of all hydraulic fluid. With the loss of all hydraulic fluid, the emergency landing gear hand pump would not lower the gear. The aircraft was then forced to land gear up. An investigation revealed the movement of the aileron control cable from the pilot's control wheel had worn a hole into the landing gear down hydraulic line. This line is located in the area of the pilot's right rudder pedal.
>
> It was found that the gear down hydraulic line was not adequately supported and was repositioned against the aileron cable. Since the hydraulic line is located close to the pilot's feet, the hydraulic line could have been inadvertently repositioned against the aileron cable by the foot of the pilot. This situation would then allow the aileron cable to wear into the hydraulic line and cause the failure of the landing gear system.
>
> Owners, operators, and maintenance personnel should inspect the landing gear hydraulic lines of Cessna 210 aircraft in the forward cockpit area near the rudder pedals for wear damage or leaks. If the hydraulic lines are in close proximity to the aileron cables, the lines should be repositioned to provide adequate clearance to prevent interference between the hydraulic lines and the aileron control cables. The hydraulic lines should be positioned to provide sufficient clearance for the pilot's feet during operation of the rudder pedals. It is recommended that this inspection be completed within the next 10 hours of operation and be repeated after every 100 hours of operation or 12 months, whichever occurs first.

Cessna; Model Citation II 550; Defog Blower; ATA 3040

During descent after a 3-hour flight, the crew smelled exhaust-type fumes passing through 9,000 feet.

The crew turned the temperature control to “full cold,” and the smell disappeared. When the aircraft was level at 4,000 feet on the downwind leg, the crew selected increased heat on the temperature controller. The fumes returned after a very short period of time, and the cockpit started filling with smoke. The crew donned oxygen masks, deployed passenger oxygen masks, and dumped pressurization. After turning the temperature control to “full cold,” the cockpit remained clear of any smoke.

Technician discovered the defog blower assembly (P/N 5703-3) was bad. The FAA Service Difficulty Reporting Program data base revealed 10 reports on defog blower assembly failures on the Cessna Citations.

According to the submitter, the circuit breaker does not trip when the defog blower assembly fails.

Part total time unknown.

PIPER

Piper; Model PA 26R-201; Arrow; Nose Actuator Attach Bracket; ATA 5340

During a routine inspection, the technician discovered the nose gear actuator attach bracket (P/N 67271-800) was loose, and the nose gear actuator attach bolt was bent.

The technician reported all the attach rivets and hardware were working.

According to the submitter, this is the second such occurrence in their fleet. He recommends replacing the clevis bolt every 100 hours and thoroughly inspecting this area at each inspection.

Part total time-1,065 hours.

Piper; Model PA 31-350; Chieftain; Fuel Boost Pump Wiring; ATA 2897

The pilot reported that the left fuel boost pump circuit breaker popped in flight.

When the technician inspected the fuel pump in the left wing root, he found evidence of a brief fire in the area. The plastic spiral wrap around fuel line had shrunk and melted. The pneumatic line to the left wing deice boot was melted, and the area was covered with soot.

The technician stated the fire was caused when the wire to the low-pressure boost pump chafed against the fuel line (P/N 23195-17) to the boost pump warning pressure switch. When the wire arced, it created a hole in the fuel line, which caused a fuel leak and a fire. When the circuit breaker popped, the boost pump failed and removed pressure from the leaking line.

Part total time-21,559 hours.

HELICOPTERS

AGUSTA

Agusta; Model A109E; Tail Boom Structure; ATA 5302

During a 300-hour interior inspection of the vertical fin, the technician discovered a crack on one of the small secondary structure ribs (P/N 109-0373-05-105) on the left side of the vertical fin.

The submitter inspected two other A109E aircraft in the fleet and discovered similar cracks on one aircraft. He stated that Agusta is aware of this problem.

Part total time-293 hours.

McDONNELL DOUGLAS

McDonnell Douglas; All Models 369; Nylon Torque and Oil Pressure Gauge Lines; ATA 7712 and ATA 7930

The FAA Safety Management Group (ASW-112) located in Fort Worth, Texas, submitted this article. *(The article is published as it was received.)*

During the installation of a radio in the instrument panel of an MD 369 helicopter, the torque and oil pressure gauge lines were slightly moved to facilitate installation. As the lines (P/N 369A8010-677 and P/N 369A8010-681) were touched, they broke into several pieces.

An investigation revealed these lines were very brittle and age hardened along their entire length. The lines are routed from the instrument panel up and across the top of the cockpit extending aft to the engine compartment of the helicopter. They are subject to extreme vibration, which could result in breakage and oil starvation to the engine.

The FAA recommends that operators inspect these lines for brittleness during the yearly inspection of instrument plumbing as required by the maintenance manual. The lines may be slightly moved or displaced by hand to determine flexibility. Do not pull on the torque or oil pressure lines to avoid damaging the ends at the fittings where oil leakage may occur.

Part total time not given.

POWERPLANTS AND PROPELLERS

ROLLS-ROYCE

Rolls-Royce Corporation (formerly Allison Engine Company); "B" Nut Connection; ATA 7200

The FAA Propulsion Branch (ACE-118C) of the Aircraft Certification Office (ACO), located in Des Plaines, Illinois, submitted the following article. *(The article is published as it was received.)*

There have been a number of aircraft accidents or incidents caused by loss of engine power associated with loose "B" nuts on the engine compressor delivery pressure (PC) sensing line. Other pneumatic line "B" nuts in the remainder of the control system plumbing have also suffered the same type failures. These events are avoidable since all testing done by the manufacturer and others has shown that "B" nuts do not loosen under operational conditions if they have been properly torqued. Considering the total of approximately 25,000 250 series engines in service, the number of "B" nut failures does not seem high. However, it is desirable to eliminate this and other tubing related failures whenever possible.

For this reason, it is recommended operators and maintenance personnel review and comply with the procedures set forth in the following listed Allison Alert Commercial Service Letters (CSL) entitled "Maintenance Warning – Control System Plumbing."

250-C18 series CSL A-169
250-C20 series CSL-A-1166
250-C28 series CSL A-2113
250 C30 series CSL A-3117
250-C20R series CSL A-4036
250-B15 series TP CSL A-101
250-B17 series TP CSL A-1121
250-B17F series TP CSL A-2019

These documents discuss the cause of engine tubing "B" nut problems in general, and contain recommended maintenance practices to follow when handling these assemblies. Some of the recommended practices are summarized below:

1. Use only the correct Rolls-Royce (Allison) part number tube assemblies for replacement. There have been cases of failures involving a substituted part-numbered tube because "it appeared to fit."

2. Use the correct torque value range given in the Operation and Maintenance Manual (OMM) when installing tubing.

3. As discussed in the OMM, make sure the tube fits correctly and the ends are aligned with the attachment fittings before torquing the nuts. Be aware that it's possible for a tube with the correct part number to be misaligned due to shipping and/or handling damage. Finally, applying final torque to a misaligned tube forced into position can introduce a preload which can lead to leaks or tube failure."

4. After installation and proper torquing, install "torque paint" (slip marks) on the "B" nut and stationary fitting.

5. Inspect the "B" nut "torque paint" every 100 hours of operation for evidence of movement.

Additionally, whenever a component or tube assembly is removed and reinstalled in the pneumatic control system, a pressure check should be performed in accordance with the procedures provided in the engine OMM.

The torque paint installation and inspection procedures mentioned above are being incorporated into the OMM by the manufacturer.

To obtain a copy of these CSLs, you may contact Allison, Model 250 Customer Support at FAX (317) 230-3381.

AIR NOTES

ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the Flight Standards Service Aviation Information Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is:

http://av-info.faa.gov/isdr/

When the page opens, select “M or D Submission Form” and, when complete, use the “Add Service Difficulty Report” button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

SERVICE DIFFICULTY REPORTING PROGRAM

The objective of the Service Difficulty Reporting (SDR) Program is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products fleet wide. The SDR program is an exchange of information and a method of communication between the FAA and the aviation community concerning inservice problems.

A report is filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection which impairs, or which may impair its future function, it is considered defective and should be reported under the program.

These reports are known by a variety of names: Service Difficulty Reports (SDR), Malfunction or Defect Reports (M or D) and Maintenance Difficulty Reports (MDR).

The collection, collation, analysis of data, and the rapid dissemination of mechanical discrepancies, alerts, and trend information to the appropriate segments of the FAA and the aviation community provides an effective and economical method of ensuring future aviation safety.

The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result of this review, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (AD's) to address a specific problem.

The primary source of SDR's are certificate holders operating under Parts 121, 125, 135, 145 of the Federal Aviation Regulations, and the general aviation community which voluntarily submit records. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft and maintenance surveillance as well as accident and incident investigations.

The SDR data base contains records dating back to 1974. Reports may be submitted on the Internet through an active data entry form or on hard copy. The electronic data entry form is in the Flight Standards Aviation web site. The URL is: <http://av-info.faa.gov>.

A public search/query tool is also available on this same web site. This tool has provisions for printing reports or downloading data.

At the current time we are receiving approximately 45,000 records per year.

Point of contact is:
John Jackson
Service Difficulty Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125

Telephone: (405) 954-6486
E-Mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Isaac Williams (405) 954-6488
FAX: (405) 954-4570 or (405) 954-4655

Mailing address: FAA, ATTN: AFS-620 ALERTS, P.O. Box 25082,
Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at: <http://av-info.faa.gov>. Select the General Aviation Airworthiness Alerts heading.

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between May 27, 2003, and June 24, 2003, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA
Aviation Data Systems Branch, AFS-620
PO Box 25082
Oklahoma City, OK 73125

These reports contain raw data that has not been edited. If you require further detail please contact AFS-620 at the address above.

FEDERAL AVIATION ADMINISTRATION
Service Difficulty Report Data

Sorted by Aircraft Make and Model then Engine Make and Model. This Report Derives from Unverified Information Submitted By the Aviation Community without FAA review for Accuracy.

ACFT MAKE	ENG MAKE	COMP MAKE	PART NAME	PART CONDITION	DIFF-DATE	T TIME
ACFT MODEL	ENG MODEL	COMP MODEL	PART NUMBER	PART LOCATION	OPER CTRL NO.	TSO
REMARKS						
AMRGEN	LYC		HOSE	SEPARATED	04/22/2003	
AA1	O320A2B		1116	ENGINE OIL		

THE 111-6 HOSE ASSEMBLY ORIGINALLY MANUFACTURED IN 1996 BY MFG WAS OVERHAULED/REPAIRED BY UNKNOWN PERSONS ON 7-02 AS STATED IN OWNERS ENGINE LOG BOOK ENTRY AND STAMP IMPRESSIONS DATED ON ORIGINAL TAG. THE ORIGINAL HOSE ASSEMBLY WAS TAKEN AAPART AND A NEW HOSE ASSEMBLED INTO THE ORIGINAL FITTINGS. THE HOSE FITTING BLEW OFF THE 111-6 HOSE JUST AFTER TAKE OFF AND THE CABIN FILLED WITH SMOKE ACCORDING TO THE PILOT/OWNER. UPON INVESTIGATION, IT APPEARS THE HOSE ASSEMBLY MAY NOT HAVE BEEN ASSEMBLED PROPERLY. THE NIPPLE WAS NOT INSERTED INTO THE INSIDE DIAMETER OF THE HOSE IAW MFG.

BEECH	PWA		FLANGE	CRACKED	04/28/2003
100BEE	PT6A28		504100491	BULKHEAD	

(CAN) CRACK ON BULKHEAD FLANGE P/N 50410049-1 APPROX. .7500 LONG CRACK. LITERAL LOCATION: NOSE COMPARTMENT AREA, NOSE WHEEL STEERING IDLER SHAFT SUPPORT INTERCOSTAL BULKHEAD.

BEECH	PWA		CIRCUIT BOARD	INOPERATIVE	05/14/2003
1900C	PT6A65B		640789	AUTOFEATHER SYS	

(CAN) DURING TAKE-OFF ROLL, THE PILOT IN COMMAND NOTICED THAT THE AUTO-FEATHER SYSTEM DID NOT ILLUMINATE TO IDENTIFY THE ARM FUNCTION. THE PILOT IN COMMAND INITIATED, REJECTED TAKE-OFF, ADVISED ATC AND SUBSEQUENTLY RETURNED TO THE AIRPORT.. AN APPROVED MAINTENANCE ORGANIZATION WAS CONTACTED TO INSPECT AND TROUBLESHOOT THE AUTO FEATHER SYSTEM MALFUNCTION. WE WERE INFORMED BY THE AMO THAT THE MALFUNCTION OF THE AUTO FEATHER INDICATION SYSTEM WAS RECTIFIED BY THE REPLACEMENT OF THE PRINTED CIRCUIT BOARD NR 119 REFERENCED AS P/ N 112-364021-5. AIRCRAFT RUNS WERE COMPLIED WITH AND THE AIRCRAFT WAS RETURNED TO SERVICE. THERE HAS BEEN NO RE-OCCURRENCE OF THIS DISCREPANCY.

BEECH	PWA	CONTROLLER	STUCK	05/01/2003
200BEE	PT6A41	MC815AS1	MLG	

(CAN) FOLLOWING A NORMAL TAKE-OFF, GEAR WAS SELECTED UP AT WHICH TIME THE FLIGHT CREW HEARD A LOUD GRINDING NOISE DURING THE FINAL PHASE OF THE GEAR UP CYCLE. GEAR WAS RE-SELECTED DOWN AND THERE WAS NO MOVEMENT OR MOTOR NOISES. FLIGHT CREW COMPLETED A MANUAL GEAR EXTENSION, THREE GREEN LIGHTS OBSERVED. ANUNEVENTFUL LANDING WAS COMPLETED. FURTHER INVESTIGATION BY MAINTENANCE FOUND THAT THE LANDING GEARMOTOR CONTROLLER HAD FAILED IN THE GEAR UP POSITION, NOT STOPPING WHEN THE GEAR WAS UP, ONLY STOPPING WHEN THE MOTOR COULD NOT LONGER MOVE THE GEAR AND POPPED ITS CIRCUIT BREAKER. MAINTENANCE REPLACEDTHE CONTROLLER AND COMPLETED GEAR SWINGS ALL SWINGS WERE NORMAL. HOWEVER DUE TO THE POSSIBLE OVER STRESSING OF THE

BEECH PWA ACTUATOR DAMAGED 05/06/2003
200BEE PT6A41 9981005765 MLG
(CAN) THIS ACTUATOR WAS INSTALLED AFTER HAVING OTHER GEAR PROBLEMS. WHEN THE GEAR WAS SELECTED UP IN FLIGHT THE GEAR MOVED 1/4 OF THE WAY BEFORE THE CLUTCH IN THE GEARBOXBEGAN SLIPPING AND CONTINUED TO SLIP UNTIL THE CIRCUIT BREAKER POPPED.. THE FIRST TIME THIS HAPPENED WE SUSPECTED THE MOTOR & THE CIRCUIT BREAKER BECAUSE WE DID NOT KNOW THAT THE CLUTCH WAS SLIPPING,AFTER REPLACING THE MOTOR & CB THE GEAR REPEATED THE SAME PROBLEM. (WILL NOT RETRACT WITH AIR LOADS WORKS WELL IN HANGAR) ON THE SECOND ATTEMPT IT WAS NOTED THAT THE GEARBOX CLUTCH WAS SLIPPING DURINGRETRACTION IN FLIGHT. WE DECIDED TO REPLACE THE GEARBOX. WITH THE GEARBOX DISCONNECTED IT WAS NOTED THAT THE RIGHT HAND GEAR ACTUATOR WAS HARDER TO TUR
BEECH PWA FIRE DETECTOR MALFUNCTIONED 04/29/2003
200BEE PT6A41 302158 ENGINE
(CAN) WHILE CLIMBING THROUGH 1500 FT THE LT ENGINE FIRE WARNING LIGHT ILLUMINATED INTERMITTENTLY WITH NO APPARENT SIGNS OF FIRE, HEAT OR CHANGE IN ENGINE PARAMETERS. THE AIRCRAFT RETURNED TO BASE FOR LANDING AND THE LIGHT EXTINGUISHED AND SSTAYED OUT ON FINAL APPROACH. INSPECTION OF THE FIRE DETECTION SYSTEM BY MAINTENANCE DETERMINED THAT THE LIGHT WAS SET OFF BY THE PRESENCE OF MOISTURE IN THE FIRE DETECTOR WIRING CONNECTOR. THE MOISTURE WAS EXPELLED AND THE SYSTEM TESTED SERVICEABLE.
BEECH CONT LINKAGE OUT OF ADJUST 04/09/2003
58 IO550* 451350393 LT WING AILERON
DURING ANNUAL INSPECTION, FOUND THE AILERON TRIM TAB LINKAGE RUBBING ON LEADING EDGE OF AILERON. UPON INVESTIGATION AND CONVERSING WITH MFG TECH, FOUND THE TRIM TAB LINKAGE ARM (PN 451350393) WAS INSTALLED 180 DEGREES OUT, WITH THE SHORT EEND HOOKED TO THE ACTUATOR LINKAGE, AND THE TRIM TAB LINKAGE ATTACHED TO THE LONG END. LINKAGE ARM WAS REINSTALLED IN PROPER ORIENTATION DISCREPENCY
BEECH CONT SKIN CRACKED 05/19/2003 1363
58P IO550* ELEVATOR
CRACK FOUND ON TOP SIDE OF LEFT HAND ELEVATOR, JUST FORWARD OF OUTBOARD END OF TRIM TAB. CRACK EXTENDS FORWARD INBOARD FOR APPROXIMATELY THREE INCHES.
BEECH CONT PEDAL BROKEN 04/02/2003 10509
95B55 IO470L 505243263 RUDDER
(CAN) DURING AN OPERATIONAL CHECK OF CONTROLS DURING MAINTENANCE, L/H RUDDER PEDAL FRACTURED AT ITS ATTACHMENT POINT FROM WEAR. OBLONG WEAR WAS NOTED IN ATTACHMENT AREA. WEAR WAS NOT READILY NOTICED DUE TO ATTACHEMENT DESIGN AND ATTACHMENT TO BRAKE MASTER CYLINDER. REMOVAL OF ATTACHING HARDWARE OF PEDAL NEEDED TO CHECK FOR WEAR.OTHER COMPANY B55 AIRCRAFT CHECKED FOR WEAR AND FOUND WORN. PARTS REPLACED AS NECCESSARY.
BEECH PWA BOLT SHEARED 04/27/2003 294
A36 PT6* 5322012166 NLG 80
DURING PILOTS PREFLIGHT, FOUND THE NUT LAYING ON THE GROUND FOR THE LOWER NOSE GEAR BOLT (532.20.12.166). THIS BOLT ATTACHES THE INNER SHOCK STRUT TUBE (LOWER) TO THE NOSE GEAR FORK, AND RETAINES THE INNER SLEEVE PLUG. THE BOLT WAS SHEARED OF FLUSH WITH THE NUT, THERE WERE SIGNS OF EXSISTING CORROSION AT THE FRACTURE LINE.
BEECH ACTUATOR FAILED 04/28/2003
B100 NYLC9871 BLEED SYSTEM
(CAN) CREW WAS UNABLE TO COOL THE CABIN TEMPERATURE DURING THE FLIGHT.BOTH THE AUTO AND MANUAL MODE SYSTEM WAS USED WITHOUT SUCCESS.FOUND THE LT BLEED AIR BYPASS VALVE/ACTUATOR STUCK IN THE FULL HOT POSITION.UNIT REPLACED WITH AN OVERHAULEDD UNIT AND SYSTEM TESTED OK.
BEECH FIRE LOOP MALFUNCTIONED 04/28/2003
B100 RT ENGINE
(CAN) DURING CLIMB AFTER TAKE OFF, THE RT FIRE WARNING LIGHT CAME ON, THE PILOT CONDUCTED AN ENGINE SHUT DOWN AND USED THE FIRE BOTTLE AND RETURN TO THE MAIN BASE AS PER FLIGHT MANUAL CHECKLIST. UPON INVESTIGATION, NO FIRE WAS FOUND, ALL TTHREE FIRE SENSORS DETECTORS WERE INSPECTED, WIRING INSPECTED AND NO FAULTS WERE FOUND. THE FIRE BOTTLE WAS RESERVICED AND RE-INSTALLED AND SYSTEM WAS TESTED PER TH E MAINTENANCE MANUAL,OK. THE FIRE WARNING WAS CAUSED BY THE EARLY MORNING SUN LIGHT WHICH SHINED INTO COWL OPENINGS CAUSING A FALSE WARNING.
BEECH PWA RESISTOR LOOSE 03/06/2003 12598
B200 PT6A42 501A INDICATOR 12598
(CAN) CREW REPORTED TOTAL LOSS OF ENGINE TEMPERATURE INDICATION DURING TAXI OPERATIONS. ALL TROUBLESHOOTING PROCEDURES WERE FOLLOWED IN THE ENGINE AND AIRFRAME MANUFACTURER'S MAINTENANCE MANUALS. AIRFRAME WIRING HARNESS WAS CONNECTED TO MULLTI-METER FOR TESTS. OPEN CIRCUIT WAS NOTED TO EXIST THROUGH THE BALANCE RESISTOR. INTERNAL INSPECTION OF THE RESISTOR REVEALED A LOOSE, SOLDERED CONNECTION, CONNECTION RE-MADE. SYSTEM TESTED WITHIN LIMITS. ENGINE RUNS CARRIED OUT AND SYSTEM OPERATED NORMALLY.
BEECH PWA TUBE GROOVED 05/14/2003
C90A PT6A21 50921620235 FUEL SYS
(CAN) THIS AC HAS CLEVELAND BRAKE STC INSTALLED. DURING MAIN GEAR RETRACTION AND EXTENSION LT MAIN GEAR FORWARD HYDRAULIC BRAKE UNIT CONTACTED MAIN FUEL SUPPLY TUBE AND DAMAGED TUBE BY ERODING A TWO-INCH LONG BY ONE-QUARTER INCH WIDE GROOVEE IN TUBE WALL. THIS FUEL TUBE IS MAIN SUPPLY LINE FROM NACELLE TANK BOOST PUMP TO FIREWALL SHUTOFF VALVE AND APPEARED TO BE IMPROPERLY POSITIONED FOR ADEQUATE CLEARANCE. PERFORATION OF TUBE WALL WOULD RESULT IN TOTAL FUEL LOSS FROM LT WING FROM A PRESSURIZED LEAK. POTENTIAL SAFETY ISSUES ARE RISK OF FIRE, LOSS OF ENGINE POWER AND POSSIBLE CONTROL DIFFICULTY RESULTING FROM A 1000 LB FUEL IMBALANCE. TUBE WAS REPLACED WITH A SERVICEABLE UNIT
BEECH CONT THROTTLE JAMMED 04/29/2003 402
F33A IO520BB FUEL CONTROL
PILOT REPORTED THROTTLE WAS HARD TO MOVE. ON FURTHER INVESTIGATION FOUND THROTTLE BUTTON WOULD JAM AND NOT RELEASE. THESE CABLES ARE PRETTY RELIABLE, AT THIS TIME, NO PROBLEM, CAUSE OR RECOMMENDATIONS TO PREVENT THIS FROM RECURRING.
BOMBDR PWC DOWNLOCK DAMAGED 02/26/2003
DHC840 PW150A 473901 NLG
(CAN) NOSE GEAR UNSAFE(AMBER NOSE GEAR, RED NOSE GEAR AND AMBER TRANSIENT LIGHT IN HANDLE) DURING CLIMB AND CRZ, MAX SPEED 210 KTS. AFTER GEAR DOWN SELECTION, NOSE GEAR INDICATE UNSAFE, NORMAL LANDING PERFORMED AFTER ALTERNATE GEAR SELECTIOON AND SAFE INDICATING.INVESTIGATION/ACTION NOSE LANDING GEAR DOWNLOCK PROXIMITY SENSORS NR 1 AND NR 2 REPLACED . DAMAGES TO NOSE LANDING GEAR FWD DOORS REPAIRED. LANDING GEAR RETRACTION/EXTENSION CHECK PERFORMED WITHOUT ANY REMARKS. CONCLUSIONTHE NOSE GEAR UNSAFE CONDITION WAS MOST PROBABLY CAUSED DUE BREAKAGE OF THE NR 1 LOCK SENSOR WIRING.
CESSNA CONT BELLCRANK CRACKED 05/09/2003
120 C8512F 300433113 RUDDER
(CAN) DURING INVESTIGATION THE RUDDER BELLCRANK WAS FOUND CRACKED.

CESSNA CONT RUDDER BINDING 05/17/2003
150G O200A VERTICAL STAB
(CAN) INCORPORATION OF AD 2000-20R1 (CESSNA S/B SEB01-1) RESULTS IN BINDING BETWEEN NEW STOP BOLTS AND RUDDER STRUCTURE DUE TO THE INCREASED SIZE OF THE STOP BOLTS. BINDING WAS NOT APPARENT UNLESS PRESSURE WAS APPLIED TO BOTH RUDDER PEDALSS.
CESSNA CONT RIB CRACKED 03/20/2003
150M O200A 0432001646 HORIZONTAL STAB
(CAN) LEADING EDGE RIB ASSEMBLIES ARE VERY DIFFICULT TO SEE.THE USE OF A MIRROR THROUGH THE HORIZONTAL SPAR AND RIB LIGHTNI NGHOLES IS THE ONLY WAY TO SEE THE CRACKS ALONG THE TABS.I HAVE INCLUDED TWO PHOTOS. ONE OF THE PHOTOS SHOWS A NEW PPART AND WERE THE LOCATION OF THE CRACKS HAVE BEEN(ALONG THE TABS: UPPER AND LOWER).WE BELIEVE THE RIBS ARE CRACKING DUE TO IMPROPER GROUND HANDLING.THE PRACTICE OF PUSHING THE AIRCRAFTS TAIL DOWN BY ITS SPAR IN ORDER TO ROTATE THE AIRCRAFT IN POSITION MAY BE DAMAGING THESE RIBS. BOT H RIBS WERE REPLACED WITH NEW.THE TAIL SURFACES WERE REMOVED AND
CESSNA LYC CIRCUIT FAILED 04/08/2003 11636
172M O320E2D S159060L ALTERNATOR
(CAN) THE PILOT WAS DOING NIGHT TRAINING LOCALLY WHEN HE NOTICED THE LOW VOLTAGE INDICATOR LIT AND THE AMMETER SHOWING A DISCHARGE. HE FOUND THE ALTERNATOR CIRCUIT BREAKER TRIPPED.THE BREAKER WAS RESET WHICH RESULTED IN SOME SMOKE AND SPARKKS FROM UNDER THE PANEL. THE LOW VOLTAGE INDICATOR WAS STILL LIT AND THE AMMETER STILL SHOWING DISCHARGE.THE PILOT SHUT DOWN THE ALTERNATOR SYSTEM AND RETURNED UNEVENTFULLY TO THE AIRPORT. INVESTIGATION REVEALED THE ALTERNATOR CIRCUIT BREAKER FAILED IN THE CLOSED POSITION.CIRCUIT BREAKER REPLACED IN ACCORDANCE WITH CESSNA SERVICE LETTER SE76-15.
CESSNA LYC CARBURETOR FAILED 05/26/2003
172M O320E2D 10S135 ENGINE
(CAN) ACCELERATER DISCHARGE TUBE IN THE CARBURETOR VENTURI BROKE OFF, IT WAS SUCKED UPTO THE THROTTLE PLATE AND APPARENTLY JAMMED THE THROTTLE AT 2,00 RPM. PILOT COULD NOT ADJUST POWER UP OR DOWN. THE AIRCRAFT WAS FLOWN TO THE AIRPORT, ENGIINE WAS SHUT DOWN AND A GLIDE TO LANDING WAS EXECUTED. AFTER TOUCHDOWN ENGINESTARTED AND RAN NORMALLY. IT APPEARS THE DISCHARGE TUBE FELL DOWN INTO THE INTA KE AIR BOXWHEN THE ENGINE WAS SHUT DOWN DUE TO NO AIRFLOW IN THE VENTURI. THIS ALLOWED THE THROTTLE PLATE TO WORK NORMALLY FOR THE TAXI. THE TUBE WAS FOUND LYING IN THE AIRBOX BY THE CARB AT FLAPPER.
CESSNA LYC WIRE BROKEN 04/30/2003
172M O320E2D S123017 CARB HEAT
(CAN) CARB HEAT CONTROL WIRE BROKE AT PIVOT BOLT AT AIRBOX ARM. NO VISIBLE DAMAGE, BOLT MAY HAVE BEEN OVERTIGHT AND NICKED WIRE. NO WEAR ON CONTROL OTHERWISE, CABLE WIRE AND SHEATH ADJUSTED AND WIRE REATTACHED (EXTRA LENGTH AVAILABLE FOR ADDJUSTMENT). AIRCRAFT RETURNED TO SERVICE.FAILURE POSSIBLY DUE TO ROUGH OPERATION BY STUDENT.
CESSNA LYC SOLENOID INOPERATIVE 04/24/2003
172N O320H2AD S1991A1 STARTER
FOURTH INCIDENT INVOLVING THIS SAME STARTER SOLENOID INTAILING SHORTING OUT INTERNAL WINDING CAUSING STARTER TO MALFUNCTION. THE FORMER THREE OCCASIONS, THE STARTER FAILED TO ROTATE (SOLENOID STUCK IN THE OPEN POSITION) ON THIS OCCASION, STARTER TURNED AS SOON AS THE MASTER WAS TURNED ON (SOLENOID STUCK IN CLOSED POSITION). ON THIS OCCASION, THE BATTERY WAS NOT FULLY CHARGED AND CAUSED A HIGH CURRENT DRAW TO THE STARTER. A DICECTEDED SOLENOID REVELED SHORTED WINDINGS. THIS SWITCH WAS IN OPERATION NOT MORE THAN 6 MONTHS.
CESSNA LYC MOUNT DAMAGED 04/10/2003 7262
172P O360A4M 05510231 ENGINE 970
ENGINE MOUNT WAS REMOVED FOR INSPECTION FOLLOWING PROPELLER STRIKE WITH AIRCRAFT. AEROSPACE WELDING REPORTED MOUNT WAS PUSHED UP ON LOWER SECTION AND PUSHED IN ON RIGHT SIDE. AT REMOVAL MOUNT AWAS DIFFICULT TO REMOVE FORM ATTACHMENT BOLTSS. AFTER PROPELLER STRIKE ENGINE MOUNT SHOULD BE REMOVED FOR INSPECTION.
CESSNA LYC J-BOX LOOSE 02/03/2003 3600
172R IO360A1A MC012A FIREWALL
FOUND THE ELECTRICAL JUNCTION BOX (J-BOX) BRACKETS LOOSE. FURTHER INVESTIGATION REVEALED THAT THE 12 RIVETS THAT HOLD THE BRACKETS TO THE BOX WHERE LOOSE AND 6 OF THE 12 RIVETS THE RIVET HEADS WERE POPPING OFF, CRACKED AND FRACTURED (PHOTOOS). IF LEFT UNATTENDED THIS COULD CAUSE THE BOX TO COME LOOSE FROM THE BRACKETS AND CAUSE POSSIBLE ELECTRICAL PROBLEMS. ALSO THE RIVET HEADS COMING LOOSE COULD CAUSE ARCING INSIDE THE BOX. WAS ADVISED BY AC MFG TO REPLACE THE B-STYLE RIVETS WITH AD RIVETS. NOTE: IN ORDER TO DO THIS HAD TO DISASSEMBLE THE WHOLE BOX AND COMPONENTS.
CESSNA LYC CONTROL CHAFED 05/13/2003
172R IO360L2A 0510105364 AILERON
DURING A ROUTINE INSPECTION, THE LEFT AILERON BALANCE CABLE WAS FOUND CHAFING ON A FAIRLEAD LOCATED MIDWAY THROUGH THE FLAP WELL AREA. THE CABLE IS EXTREMELY DIFFICULT TO EXAMINE THOROUGHLY WHILE INSTALLED. A BORESCOPE CAN AID IN VIEWING THHE AREA MORE ACCURATELY. THE BEST METHOD IS TO REMOVE THE CABLE AND PERFORM A BENDING TEST ON THE SHINY AREA, WHICH WILL EXPOSE ANY BROKEN WIRES. THIS OPERATOR HAS A FLEET OF APROXIMATELY 60 AIRCRAFT OF THIS MODEL, AND THIS PROBLEM BEGINS TO MANIFEST ITELF AS EARLY AS 1,500 HOURS TIS.
CESSNA LYC CONTROL CHAFED 05/13/2003
172R IO360L2A 0510105365 AILERON
DURING A ROUTINE INSPECTION, THE RIGHT AILERON BALANCE CABLE WAS FOUND CHAFING ON A FAIRLEAD LOCATED MIDWAY THROUGH THE FLAP WELL AREA. THE CABLE IS EXTREMELY DIFFICULT TO EXAMINE THOROUGHLY WHILE INSTALLED. A BORESCOPE CAN AID IN VIEWING TTHE AREA MORE ACCURATELY. THE BEST METHOD IS TO REMOVE THE CABLE AND PERFORM A BENDING TEST ON THE SHINY AREA, WHICH WILL EXPOSE ANY BROKEN WIRES. THIS OPERATOR HAS A FLEET OF APROXIMATELY 60 AIRCRAFT OF THIS MODEL, AND THIS PROBLEM BEGINS TO MANIFEST ITELF AS EARLY AS 1,500 HOURS TIS.
CESSNA LYC LANYARD CHAFED 04/17/2003
172R IO360L2A 05118204 ELT
(CAN) DURING A ROUTINE INSPECTION IT WAS NOTICED THAT THE LANYARD CABLE WHICH LINKS THE ELT SUPPORT BRACKET TO THE ELT ANTENNA SUPPORT BRACKET HAS ENOUGH SLACK IN ITS LENGTH THAT IT RUBS AGAINST THE FUSELAGE (EMPENNAGE) SKIN. THE LANYARD AAPPEARS TO BE STEEL, AND THE SKIN HAS A SMALL WERE MARK ON THE INSIDE AREA MIDWAY BETWEEN THE ELT AND ANTENNA. (MONOCOQUE SKIN)WE INSTALLED A PIECE OF SPIRAL WRAP AROUND THE LANYARD BECAUSE WE COULD NOT RE-POSITION NOR CHANGE THE LENGTH. THE LANYARD STILL RUBS UP AGAINST THE SKIN BUT IS NO LONGER WEARING A HOLE IN THE SKIN.
CESSNA LYC ACTUATOR CRACKED 04/09/2003
172RG O360* 12810015 RT MLG
DURING A CHECK RIDE, THE PILOT EXAMINER REPORTED A CLUNKING NOISE AS THE GEAR WAS CYCLED. UPON INSPECTION AND REMOVAL OF THE RIGHT MAIN LANDING GEAR ACTUATOR, IT WAS FOUND TO BE CRACKED ALL THE WAY ACROSS THE LARGE BORE AT THE FORWARD BOLLT HOLE. THE SECTOR GEAR AND THE PISTON IN THE ACTUATOR WERE ALSO DAMAGED. MFG SHOULD REDESIGN THE ACTUATOR AND GEAR PIVOT ASSEMBLIES, MAKING IT OUT OF STEEL OR ANOTHER MATERIAL THAT MIGHT STAND UP TO THE REPEATED STRESS THAT IS PUT ON THIS PART. THIS IS AN ONGOING, RECURRING PROBLEM WITH THIS TYPE OF LANDING GEAR. THIS OCCURS ON AVERAGE AROUND 2000 FLIGHT HOURS OR SOONER AND WITHOUT WARNING. SEB 01-2 HAD BEEN COMPLIED WITH AT TIME OF INSTALLATION.

CESSNA LYC ACTUATOR CRACKED 04/25/2003 8128
172RG O360F1A6 12810013 RT MLG
PILOT REPORTED HEARING A LOUD BANG WHEN LAND GEAR WAS RETRACTED. A/C LANDED WITHOUT INCIDENT. INVEST REVEALED MFG PN 1281001-3, RT MAIN GEAR ACTR BODY CRACKED THROUGH (PHOTOS). COMPLIED WITH SEB AT 5741.4 HRS. A/C TT. AD2001-06-06 HAS BEEN COMPLIED WITH. FOUND CRACK STARTING WHERE LANDING GEAR CASTING ATTACHES ONTO SPOT FACE OF BODY. COULD NOT SEE UNLESS ACTUATOR WAS REMOVED. FOUND MFG PN 9882004-1 PISTON AND 9882002-2 SECTOR GEAR SHOWS SIGNS OF GEAR GALLING. SECTOR GEAR WAS REPLACED 4011.0 HOURS PRIOR. ACTUATOR BODY MAY HAVE FAILED DUE TO FATIGUE. INSTALLED NEW ACTUATOR MFG PN 9882015-4 AND SECTOR GEAR AS REQUIRED. TEST RAN LANDING GEAR AND PERFORMED CHECKS AND TESTS, FOUND OK.

CESSNA LYC MANIFOLD INACCURATE 04/30/2003
172S IO360L2A FUEL CONTROL
THE PILOT REPORT A ROUGH ENGINE AT 1,000 FT. DURING SUBSEQUENT INSPECTION AND TROUBLESHOOTING, THE FUEL INJECTOR NOZZLES WERE CLEANED AND TESTED, THE FUEL MANIFOLD WAS REPLACED, AND THE FUEL SERVO WAS REPLACED.

CESSNA LYC LYC PLUG LOOSE 05/21/2003 1401
172S O360* STD-1211 CAMSHAFT
WHILE PRACTICING TOUCH AND GOES, THE INSTRUCTOR NOTICED A THIN FILM OF OIL ON THE WINDSHIELD. IT QUICKLY GOT WORSE. MADE EMERGENCY LANDING. MAINTENANCE DISCOVERED THE CRANKSHAFT PLUG HAD COME LOOSE. OIL LEVEL WAS AT 4.5 QTS. REPLACED CCRANK PLUG, CHECKED ENGINE BREATHER LINES (CLEAR), CLEANED AIRCRAFT, SERVICED OIL AND PUT AIRCRAFT BACK INTO SERVICE. MFG CONTACTED AND INFORMED OF THE INCIDENT.

CESSNA LYC VALVE BROKEN 06/01/2003
177RG IO360A1B6 CYLINDER HEAD
(CAN) PILOT REPORTED HEARING A BANG DURING CLIMB, FOLLOWING BY PARTIAL POWER LOSS AND VIBRATION WAS FELT. AN EMERGENCY WAS DECLARED AND AIRCRAFT RETURN FOR AN UNEVENTFUL LANDING. INITIAL INVESTIGATION REVEALED NR 3 CYLINDER HAS A VALVE HEEAD SEPARATED AND IS STICKING OUT OF BOTTOM SPARK PLUG HOLE AREA. FURTHER DETAIL WILL BE SUBMITTED UPON ENGINE TEARDOWN.

CESSNA CONT BULKHEAD CRACKED 12/02/2002
182P O470* 07126151 FUSELAGE
WHEN PERFORMING A FULL STALL LANDING THE TAIL TIE DOWN STRUCK THE GROUND (RATHER HARD). INSPECTION FOUND NO DAMAGE OTHER THAN SCUFFING OF THE TIE DOWN RING. FOUND ALL FIVE NUTS AND BOLTS TO BE TIGHT TO BOTH FINGER PRESSURE AND WRENCH, COMMPLIENCE WITH AD. WHILE CLEANING AREA AROUND RT RUDDER CABLE HOLE, A POSSIBLE CRACK WAS NOTED AND CONFIRMED. CRACK ORIGINATED AT APPROX 11 OCLOCK ON THE HOLE, RADIATING OUTWARD AND UPWARD APPROX .3125 INCH, TO A POINT APPROX .1875 INCH FROM UPPER CURVE AT BULKHEAD FLANGE. STRIKE ON TIE DOWN RING WAS A DIRECT CONTRIBUTOR TO THE DAMAGE FOUND.

CESSNA LYC LOCK COLLAPSED 04/26/2003
182S IO540AB1A5 05142132 SEAT CYLINDER
(CAN) THE PILOT WAS PRACTICING A FORCED LANDING AND WAS ON FINAL APPROACH WITH FULL FLAPS, NO POWER AND A LOT OF TRIM TO PRODUCE A 70KT GLIDE. AS FULL THROTTLE WAS APPLIED AND ABORTED LANDING AT 500 FT, THERECLINABLE SEAT BACK COLLAPSED. THHE PILOT MANAGED TO USE THE ELECTRIC TRIM TO BACK OFF THE TRIM AND REGAIN CONTROL. THE SEAT BACK WAS RECLINED BACK TO THE UPRIGHT POSITION FOR AN UNEVENTFUL LANDING.THE PROBLEM COULD NOT BE REPEATED ON THE GROUND, INSPECTION COULD NOT REVEAL ANY OBVIOUS SIGN FOR THE CAUSE OF THE FAILURE. THE SEAT RECLINE CYLINDER LOCK ASSY WAS REPLACED AS A PRECAUTION.

CESSNA LYC BULKHEAD CRACKED 04/11/2003
182S IO540AB1A5 07137879 FUSELAGE
(CAN) FUSELAGE SKIN PANEL UNDER REFUELING STEPS NOTED HAVING A BULGE AREA AROUND MOUNTING BOLT. SKIN MOVEMENT ALSO WAS EVIDENT WHEN WEIGHT WAS APPLIED TO THE STEP. DETAIL INSPECTION OF AREA FOUND BOTH THE FUSELAGE SKIN AND BULKHEAD WHERE THE STEP IS MOUNTED HAS MULTIPLE CRACKS.

CESSNA PWA STRUT DEFECTIVE 04/16/2003
182S PT6A11 07436214 MLG
THE DIAMETER OF THE OLOE TUBE IS .0012 INCHES SMALLER THAN THE BORE OF THE FORK. THE FORK WAS HELD ON ONLY BY THE NR5 BOLT. THE OLEO TUBE HAS AN UNUSUAL WEAR PATTERN OF CIRCUMFERENTIAL WEAR AND RIDGES. IT IS BELIEVED THAT THIS OLEO WAS DDEFECTIVE FROM THE MANUFACTURER. IT IS RECOMMENDED IXISTING AIRCRAFT BE INSPECTED FOR THIS CONDITION. THE IMPROPER FIT OF THE TUBE TO THE FORK WILL EVENTUALLY CAUSE EXCESSIVE WEAR ON THE FORK AND POSSIBLE NLG FAILURE.

CESSNA PWA COVER CORRODED 03/07/2003 8483
208B PT6* 26222631 SUMP
UPON REMOVAL OF SUMP COVER, FOUND AFT EDGE CORRODED THROUGH TO PAINT SURFACE DUE TO TRAPPED WATER ERODING CHROMATE PRIMER. SUGGEST REMOVAL OF SUMPS AT 5000-6000 HOUR INTERVALS.

CESSNA PWA RESERVOIR CRACKED 05/10/2003
208B PT6A114A 261601741 FUEL SYSTEM
(CAN) POST FLIGHT INSPECTION REVEALED FUEL DRIPPING FROM THE RESERVOIR AREA ON THE BELLY OF THE AIRCRAFT. AFTER REMOVING THE ACCESS PANEL FUEL WAS SEEN TO BE SEEPING FORM THE UPPER SURFACE OF THE RESERVOIR . AFTER REMOVING THE RESERVOIR A SMALL CRACK WAS VISIBLE ON THE TOP SURFACE.

CESSNA PWA BUSHING MISSING 04/30/2003
208B PT6A114A NAS755006 NLG
(CAN) DURING THE COURSE OF COMPLIANCE WITH A ROUTINE PHASE 6 INSPECTION ON THE NOSE LANDING GEAR OF THIS (A SHORT-TERM LEASE) AIRCRAFT, MAINTENANCE FOUND NLG BEARING BLOCK WAS MISSING THE TWO BUSHINGS P/N NAS75-5-006 THAT GUIDE AND SUPPORT NLG DRAG BRACE FORK ATTACHMENT BOLTS. THESE BOLTS WERE OVERTORQUED, DAMAGING FORK BEARINGS, CLIPS AND GOUGING OUT THE BEARING BLOCK BUSHING BORES. ON REPLACEMENT OF THE BEARING BLOCK, BOLT P/N AN6-47A WAS FOUND TO BE CRACKED IN TWO PLACES. THE POSSIBILITY EXISTS OF PUSHING THE FORK BEARINGS THRU THE FORK AND INTO THE BEARING BLOCK BUSHING BORES THUS RENDERING THE FORK UNSTABLE WHICH COULD SEPARATE FROM THE BEARING BLOCK UNDER LOAD, AND CAUSE

CESSNA PWA FILTER FAULTY 05/14/2003
208B PT6A114A P1018 FUEL CONTROL
(AUS) P3 FILTER FAULTY. FILTER END CAPS SEPARATED FROM FILTER ELEMENT. SUSPECT PROBLEMS WITH GLUE USED TO HOLD END CAPS ON.

CESSNA PWA BLADE DAMAGED 01/22/2003
208B PT6A114A 106GA0 PROPELLER 1913
(AUS) PROPELLER NR 3 BLADE CONTAINED STONE DAMAGE AT THE 50 INCH STATION. BLADE LEADING EDGE CONTAINED A 6.350MM TO 12.7MM (0.25IN TO 0.5IN) TEAR. DAMAGE EXCEEDED REPAIRABLE LIMITS.

CESSNA PWA BLADE DAMAGED 03/28/2003
208B PT6A114A 931836 PROPELLER
(AUS) PROPELLER BLADES (2OFF) CONTAINED DEEP SCORING ON THE CAMBER SIDE LOCATED APPROXIMATELY 76.2MM TO 127MM (3IN TO 5IN) FROM THE TIP.

CESSNA PWA DRIVE SHAFT WORN 03/27/2003
208B PT6A114A 26012672 CABIN COOLING 902
(AUS) AIR CONDITIONING DRIVE UNIT DRIVESHAFT SPLINE WORN. OIL LEAK.CORRESPONDING SPLINE IN THE GEAROX SHAFT GEAR PNO 3100450-01 ALSO WORN. SUSPECT CAUSED BY LACK OF LUBRICATION.

CESSNA CONT SELECTOR WRONG PART 04/10/2003
210L IO520L C2915030101 FUEL SYSTEM 5
(AUS) FUEL SELECTOR FAULTY. INVESTIGATION FOUND THAT THE SELECTOR HAD BEEN INCORRECTLY ASSEMBLED DURING OVERHAUL 5 HOURS PREVIOUSLY.
CESSNA CONT ACTUATOR CRACKED 04/28/2003
310L IO470VO 50450014 MLG DOOR
(CAN) AT 160KTS DID NOT GET DOWN LOCKED IND ON RT MAIN. GEAR WAS SEL UP, TOP OF TRAVEL, GRINDING NOISE WAS HEARD. GEAR SEL WAS PLACED IN NEUTRAL, GEAR WAS HAND-CRANKED DOWN, A/C LANDED. RT MAIN GEAR DOOR WAS OPEN ABOUT 6 IN FROM NORMAL CLOOSED GEAR DOWN POSITION. WELD HOLDING GEAR DOOR ATTACH ARM TO MAIN GEAR DOOR ACT ASSY SHAFT WAS BROKEN ALLOWING ARM TO SLIP ON SHAFT. DURING GEAR UP SEL, DETERMINED THAT TIRE STRUCK, RE-LOCATED ARM AND MOTOR, NOT HAVING ANY IND TO SHUT OFF AS LIMIT SWITCHES ARE LOCATED ON GEAR ACT, KEPT GOING CAUSING DAMAGE TO OUTPUT GEAR P/N 0843400-201, GEARBOX GEAR P/N 0843400-30. EXCESSIVE WIND FORCE WAS APPLIED TO DOOR, BREAKING WELD. LT MAIN GEAR DOOR ACT ARM HAS BEEN
CESSNA CONT DRIVE GEAR INOPERATIVE 05/08/2003
335 TSIO520EB 632018 ALTERNATOR 972
REPORTED ALTERNATOR INOPERATIVE. UPON REMOVAL OF ALTERNATOR FOUND ALTERNATOR DRIVE GEAR TO BE DESTROYED. REMOVED AND INSPECTED OIL FILTER. FOUND SIGNIFICANT AMOUNTS OF METAL.
CESSNA BRACKET BROKEN 05/13/2003 2223
340A 53120442,3 TAIL SECTION
DURING ANNUAL INSPECTION, ELEVATOR CONTROL SYS HAD EXCESSIVE FREE PLAY. FOUND BRACKETS WERE BROKEN. THESE BRACKETS SUPPORT ELEVATOR BELLCRANK IN TAIL SECTION. BOTH BRACKETS WERE MISSING THREE RIVETS EACH ON THE VERTICAL ANGLE THAT ATTACHH RESPECTIVE BRACKET TO THEIR FORWARD CHANNEL. BOTH FORWARD TOP & LOWER TABS WERE BROKEN OFF DUE TO THREE RIVETS MISSING ON THE VERTICAL L SECTION. PARTS NEVER WERE DRILLED FOR THE REQUIRED RIVETS FROM FACTORY. IF THE REAR SECTION OF THESE BRACKETS WERE TO BREAK OFF, YOU WOULD LOOSE COMPLETE ELEVATOR CONTROL. THIS A/C WAS MANUFACTURED IN 1984 AND HAS COME THROUGH INSPECTIONS TO DATE WITH THESE RIVETS MISSING.
CESSNA ARM BROKEN 05/13/2003 6551
421B MLG DOOR ACT
RIGHT GEAR INBOARD DOOR CAME OPEN IN FLIGHT. FOUND THE ACTUATOR ARM BROKE LOOSE AND TURNED ON ITS SHAFT. THIS ALLOW THE GEAR DOOR TO COME OPEN IN FLIGHT. ONLY WARNING IS THE ADDED AIR NOISE. THE ARM IS A PRESS FIT ON THIS PART NUMBER AND HAS BEEN SUPERCEDED BY P/N 5045001-10 WHICH IS WELDED. IF THIS DOOR WERE TO COME OPEN ON TAKE OFF AND THE GEAR WAS RETRACTED IT COULD HANG UP THE GEAR. PILOT FOUND THIS CONDITION AFTER HE LANDED.
CESSNA PWA STRUCTURE DEBONDED 05/08/2003
425 PT6* AILERON
THE AILERON IS AN ALL ALUMINUM BONDED ASSEMBLY. THE AILERON WAS REPAIRED BY REPLACING THE AFT SKIN, USING DER APPROVED DATA AND WAS RETURNED TO SERVICE 11-15-2002. ON 05-08-2003 A BOND LINE SEPARATION WAS DISCOVERED ON A SKIN EDGE. REVIEEW OF THE REPAIR PROCESS INDICATES THAT AN EXCESSIVE AMOUNT OF TIME ELAPSED BETWEEN SKIN ETCH AND PRIMER APPLICATION. OXIDATION OF THE ALUMINUM SKIN RESULTED IN POOR ADHESION OF THE SKIN TO THE STRUCTURE. REPAIR PROCESSES WERE REVIEWED TO INSURE THAT ALL CORE REPAIR PARTS ARE BROUGHT TO A STABLE CONDITION IF THEY ARE NOT GOING TO BE USED IMMEDIATELY.
CESSNA LYC CRANKCASE CRACKED 04/01/2003
A152 O235L2C LW12696 ENGINE
(AUS) CRANKCASE CRACKED BEYOND REPAIR AT LH CENTRE CAM JOURNAL BEARINGBASE. CRACK RUNS ACROSS THE JOURNAL SURFACE AND THEN DOWN FOR APPROXIMATELY 76.2MM (3IN) BEFORE TRAVELLING FOR ANOTHER 76.2MM (3IN) REARWARDS. SUMP INDUCTION TUBES LOOSE.. THREE CYLINDERS CRACKED. SUSPECT SB/530A NOT CARRIED OUT ON CRANKSHAFT. INSIDEDIAMETER OF CRANKSHAFT CORRODED BEYOND LIMITS.
CESSNA CONT BRACKET WRONG PART 05/21/2003
A185F IO520D S3782 FLAP PULLEY
(CAN) FLAP CABLE IN LT WING AT FLAP PULLEY BRACKET FALL OF THE PULLEY BECAUSE OF THE WRONG SIZE OF PULLEY, MS20220-2 PULLEY AND AN5-11A BOLT SHOULD BE USE ON A/C S/N 185-0238 AND ON,
CESSNA CONT CONTROL FRAYED 03/09/2003
M337B IO360D 14601007 TE FLAPS
(AUS) LH TRAILING EDGE FLAP CONTROL CABLE CONTAINED BROKEN STRANDS IN AREA APPROXIMATELY 25.4MM (1IN) FROM SWAGE AT BELLCRANK END.
CESSNA CONT BRACKET CRACKED 05/21/2003 209
T303 TSIO520* 643042 ENGINE MOUNT 209
THE AIRCRAFT IS ON ROUTINE 100 HR INSPECTION. A CRACK WAS NOTED ON THE LOWER LT ENGINE MOUNT BRACKET. A DIE PENETRANT CHECK REVEALED A TOTAL OF THREE CRACKS. MFG HAS BEEN CONTACTED REGARDING THESES CRACKS, BUT WERE NOT INTERESTED AT ALL.. AS THIS PART IS SUCH A LOW TIME ITEM (209HRS) MAYBE A FLEET WIDE CHECK SHOULD BE INITIATED.
CESSNA CONT PROPELLER OVERSERVICED 03/11/2003 1488
U206G IO520* FP311A HUB
GREASING PROP FOUND GREASE DID NOT COME OUT AFT ZERK FITTING HOLE ON SAME BLADE. AFT/TRAILING EDGE ZERKS WERE REMOVED. RATHER IT CAME OUT ANOTHER AFT GREASE ZERK FITTING HOLE. PROP WAS REMOVED AND SENT TO PROP SHOP WHO UPON DISASSEMBLY FFOUND PROP HUB WAS COMPLETELY FILLED WITH GREASE. IT WAS NOTED ON DISASSY THERE IS NO SEAL IN AREA WHERE GREASE GOES. SEAL OCCURES BY A METAL TO METAL CONTACT OF SUFACES. TRACTOR PROP AFT GREASE ZERK. NO MORE THAN 1 OZ (APPROX 6 PUMPS OF A MANUAL GREASE GUN) IS TO BE PUT IN FITTING OR UNTIL IT COMES OUT AFT ZERK HOLE. MFG SAYS PUTTING GREASE IN FWD FITTING ON TRACTOR PROP WILL (REDUCE POSSIBILITY OF GREASE BYPASSING BEARING AREA AND ENTERING HUB CAVITY.
CIRRUS CONT BRACKET CRACKED 05/09/2003
SR20 IO360E 654358 ALTERNATOR (CAN) FORWARD ALTERNATOR MOUNTING BRACKET CRACKED.THE CRACK IS LOCATED ON THE BOTTOM SIDE OF THE FORWARDALTERNATOR MOUNTING HOLE.
CIRRUS CONT CRANKCASE CRACKED 05/06/2003 305
SR20 IO360E 65368819 ENGINE
TWO ONE INCH CRACKS WERE FOUND ON THE FORWARD, RT SIDE OF THE ENGINE CRANKCASE. THE CRACKS ARE LOCATED AROUND THE FRONT ALTERNATOR MOUNTING BRACKET. TOP REAR CASE THROUGH BOLT. THIS IS THE THIRD AIRCRAFT WER ARE DOING AN ENGINE CHANGE ONN WITH THIS DISCREPANCY.
CIRRUS CONT OIL COOLER CRACKED 05/27/2003 111
SR22 IO550N 10281A ENGINE OIL
OIL COOLER CRACKED AT OUTBOARD FLANGE, AT BAFFLING MOUNT. THIS IS THE TENTH OIL COOLER ON A/C THAT OUR REPAIR STATION HAS SEEN WITH A CRACKED OIL COOLER IN THE EXACT SAME LOCATION. MFG HAS AN OPTIONAL SB22-71-03 BAFFLE MODIFICATION THAT SSUGGESTS THAT THE BAFFLE BE MODIFIED TO PREVENT THIS PROBLEM. MY SUGGESTION IS THAT THIS SB BE MANDATORY AND/OR TIED TO AN AD TO PREVENT THE OIL COOLER FROM CRACKING AND CAUSING A POSSIBLE OIL LEAK.
CNDAIR GE SKIN DELAMINATED 03/12/2003 10121
CL6002 CF343B1 601R145011 TE FLAP
(CAN) CREW REPORTED (LEFT OUTBOARD FLAP UPPER PANEL HAS 6 INCH DELAMINATION). OUTBOARD FLAP UPPER SKIN FOUND TO HAVE 2 CRACKS NEAR INBOARD END BEGINNING AT LEADING EDGE OF SKIN PANEL.

CNDAIR GE APU FIRE 04/04/2003
CL6002 CF343B1 38004883
(CAN) APPROXIMATELY 5 MINUTES AFTER SHUTTING DOWN APU (ENGINES OFF NO GROUND POWER), DECIDED TO OPEN APU DOOR TO HELP COOL APU DOWN PRIOR TO LCV CHANGE. 2 MINUTES LATER, MAITNENANCE NOTICED THAT SMOKE AND FLAMES WERE COMING OUT OF THE APU INTAKE. MECHANIC RUSHED TO COCKPIT, CLOSED APU DOOR AND MANUALLY DISCHARGED FIRE BOTTLE. SHORTLY AFTER NOTICED THAT FLAMES WERE NOW COMING OUT OF THE APU EXHAUST. MAITNENANCE THEN DISCHARGED TWO PORTABLE FIRE EXTINGUISHERS INTO APU EXHAUST UNTIL FIRE WAS EXTINGUISHED. MAINTENANCE THEN NOTIFIED THE FIRE DEPARTMENT HOWEVER NO FURTHER ACTION WAS REQUIRED. THE APU WAS REPLACED AND SENT TO MFG FOR INVESTIGATION. NOTE: THIS APU HAD RECENTLY BEEN INSTALLED ON
CNDAIR GE GEARBOX DEFECTIVE 05/18/2003
CL6002 CF343B1 THROTTLE
(CAN) WHEN PILOT RETARDED THROTTLE AT TOP OF DESCENT, LT ENGINE FLAMED OUT. UNEVENTFUL SINGLE ENGINE LANDING. TROUBLE SHOOTING REVEALED THROTTLE CONTROL GEARBOX DEFECTIVE.
CNDAIR GE GEARBOX MALFUNCTIONED 04/04/2003
CL6002 CF343B1 THROTTLE
(CAN) THE R/H ENGINE FLAMED OUT DURING DESCENT, WHEN THROTTLES WERE RETARDED TO IDLE, R/H ENGINE CONTINUEDTO SPOOL DOWN (TOP OF DESCENT). TRIED RE-LIGHT ACCORDING QRH : N2 STAGNATION AT 40 PERCENT AND HIGH ITT, ABORTED ENGINE START AND PEERFORMED UNEVENTFULL SINGLE ENGINE LANDING IN VIE.FOUND THROTTLE CONTROL GEARBOX MALFUNCTION, WITH WORN TEETH.OBSERVED SEVERE BACKLASH IN MOVMENT , 30 ROTATION WITHOUT OUTPUTON SHAFT, FLIGHT CREW REPORTED STICKY THROTTLE LEVER DURING FLIGHT
DHAV PWA LINE LEAKING 04/28/2003
DHC810 PW120A 82950010269 HYD SYSTEM
(CAN) CREW REPORTED A FLUID LEAK FROM THE RT WING INBOARD SPOILER PCU. MAINTENANCE FOUND LIFT DUMP HYDRAULIC LINE FROM RT WING SPOILER ACTUATOR LEAKING FROM A PIN HOLE AT THE MAIN ELBOW ON THE OUTBOARD PART OF THE LINE. AFTT: 32777 HRS CYCLLES: 36996
DHAV PWA BRAKE ASSY CRACKED 04/16/2003 24203
DHC810 PW120A 214665 MLG
(CAN) BRAKE UNIT WAS INSTALLED ON AIRCRAFT FOR 233:40 SINCE ITS LAST OVERHAUL IT WAS REMOVED FROM THE AIRCRAFT ON APR 16/ 03 DUE TO IT LEAKING, ONCE AT THE SHOP IT WAS STRIPPED AND CLEANED AND SENT FOR NDT WORK. THE TECHNICIAN FOUND THE NR 11 PISTON BOSS CRACKED IN THE BOTTOM OF THE PISTON CYLINDER BORE. OUR OVERHAUL POLICY ON THE BRAKE UNITS ARE ON THE THIRD SHOP VISIT THE CASTING IS SENT FOR NDT TESTING THIS UNIT HAD ONLY 233 HRS SINCE THAT WAS LAST ACCOMPLISHED. BECAUSE OF THE LOCATION AND LENGTH OF THE CRACK IT WAS DECIDED TO SCRAP OUT THE UNIT. THE UNIT WILL BE SENT BACK TO BF GOODRICH FOR ANALYZES.
DIAMON ROTAX INTAKE VALVE SEPARATED 05/19/2003
DA20A1 ROTAX912 CYLINDER
(CAN) KATANA DA-20-A1 WAS ON A ROUTINE TRAINING FLIGHT WHEN THE CREW BECAME SUDDENLY AWARE OF A SIGNIFICANT ENGINE POWER LOSS AND WERE FORCED INTO MAKING AN UNSCHEDULED LANDING IN A FARMERS FIELD. THE AIRCRAFT LANDED SAFELY AND WAS LATER DIISMANTLED AS NECESSARY AND TRAILORED BACK TO ITS BASE OF OPERATION. FURTHER INVESTIGATION REVEALED THAT THE NR 3 CYLINDER INTAKE VALVE HAD SEPARATED AND CAUSED SIGNIFICANT DAMAGE TO THE CYLINDER HEAD AND PISTON. THE VALVE ENDED UP WEDGED PERPENDICULAR IN ITS SEAT AND THE VALVE SPRING RETAINER WAS FOUND SEPARATED AS WELL. THE ENGINE HAS BEEN REMOVED FROM THE AIRCRAFT FOR FURTHER ASSESSMENT AND REPAIR.
GROB VALVE INOPERATIVE 05/03/2003 802
G120A X03004B MLG MANIFOLD
PILOT REPORTED GEAR WAS SLOWLY TO EXTEND, OVER 1 MINUTE. AFTER PULLING 3 G'S AT 150 KNOTS GEAR FINALLY EXTENDED DOWN AND LOCKED. ON FURTHER INVESTIGATION WE FOUND NO PROBABLE CAUSE OR RECOMMENDATIONS TO PREVENT THIS FROM RECURRING.
GROB BEARING FAILED 05/12/2003 897
G120A AILERON LEVER
DURING INSPECTION OF AIRCRAFT, FOUND BEARING TO BE FAILING. RETAINING CLIP AND SEAL WERE BEING FORCED OUT OF BEARING. PROBABLE CAUSE IS A DESIGN FLAW IN THE CONTROL SYSTEM WHICH ALLOWS THE CONTROL ROD DEFLECTION TO EXCEED THE DESIGN LIMITT OF THE BEARING. RECOMMEND A DESIGN CHANGE OR REPLACE BEARING WITH ONE THAT HAS BETTER LIMITS AND LOAD HANDLING CAPABILITIES.
LKHEED SKIN CRACKED 04/14/2003
P3A 1 WING BOX
DURING ANNUAL (SPECIAL) INSPECTION CRACKS IN THE WING CENTER BOX PLANK NR 1 AND NR 3 WERE FOUND EMITTING FROM THE INTERNAL WEEP HOLES LOCATED NTHE INTERNAL PLANK RISERS. CRACK IN NR 1 PLANK, RT SIDE WAS ABOUT 3 INCHES LONG AND A 1 INCH CRAACK IN SAME PLANK ON LEFT SIDE ABOUT 3 INCHES LONG. ALL CRACKS RUN FORWARD AND AFT. FATIGUE OR HARD LANDING ARE SUSPECTED.
MOONEY LYC SKIN CORRODED 04/08/2003
M20C O360* RT WING OB LE
A/C RT WING OB LE SKIN WAS SLIGHTLY DAMAGED DURING TAXING. ACCOMPLISHED REPAIR OF LE AND A/C RETURNED SERVICE. IN COURSE OF INSP, FOUND EXTENSIVE CORROSION ON RT WING SPAR CAP STIFFNER BEHIND COPILOTS SEAT. CORROSION WAS SO EXTENSIVE THAAT SPAR CAP STIFFNER WAS 90 PERCENT CORRODED THROUGH. REMOVED ALL WING PANELS THAT WERE INSTALLED WITH COUNTERSUNK CHERRY MAX RIVETS. CORROSION ON SPAR CAP OB OF FUEL TANK THAT COULD HAVE BEEN FOUND HAD COVERS BEEN ATTACHED WITH SCREWS AND EASILY REMOVABLE AND BEEN REQUIRED INSPECTION POINTS DURING ANNUAL INSPECTION. CHERRY MAX RIVETS IN COUNTERSUNK HOLES ARE NEXT TO IMPOSSIBLE TO DRILL. PINS COULD NOT BE PUNCHED OUT OR GROUND OFF TO ALLOW RIVET TO BE DRILLED.
MOONEY CONT TRUSS BROKEN 05/12/2003 119
M20R IO550* 540017-509 NLG
A/C RECEIVED STRUCTURAL DAMAGE DURING LANDING. (THE RECORDS SHOW A NEW 540017-509 (TRUSS ASSY, NOSE GEAR, UPPER, RETRACT) WAS INSTALLED IN A/C AT THE TIME OF REPAIR.) AT TOTAL TIME 211.1 A/C WAS TAKEN OUT OF SERVICE TO REPAIR STRUCTURAL PPROBLEMS THAT CAUSED SLOWER THAN NORMAL FLIGHT. ON THIRD TEST FLIGHT AFTER REPAIRS, NOSE GEAR COLLAPSED AT END OF LANDING ROLLOUT. INSP OF NOSE GEAR SHOWED WELDED TRUSS ASSEMBLY HAD FAILED. TRUSS ASSY IS 4130-TUBE WELDED STRUCTURE THAT IS HEAT TREATED AFTER ASSY. TWO ATTACH POINTS FOR RETRACT RODS; EACH POINT HAS TWO 4130 0.50 OD X 0.035 WALL TUBES THAT TIE IT TO WELDED ASSY. BOTH RETRACT ROD ATTACH POINTS FAILED JUST ABOVE THE WELDS THAT TIE THE TUBES TO THE ASSY.
PILATS PWA DISPLAY MALFUNCTIONED 01/10/2003
PC1245 PT6A67B COCKPIT
(CAN) THE CREW REPORTED ON ROUTE THAT THE DE-ICE FAIL LIGHT WAS ON BUT ALL SYSTEMS WERE WORKING PROPERLY. UPON LANDING THE LIGHT REMAINED ON WITH ALL SYSTEMS OFF , ONLY THE BATTERY TURNED ON. THE BATTERYWAS CYCLED OFF THEN ON TO ATTEMPT TOO CLEAR THE SNAG.AFTER ABOUT 2 MINUTES OF BATTERY POWER ON, SMOKE AND ELECTRICAL BURNING SMELL APPEARED. THE BATTERY POWER WAS TURNED OFF AND THE BURNING DISSIPATED. MAINTENANCE FOUND THE CAWS PANEL AND CAWS COMPUTER COOKED, REPLACED BOTH UNITS AND NO FURTHER PROBLEMS ENCOUNTERED.

PILATS PWA WIRE CHAFED 05/07/2003
PC1245 PT6A67B BOOST PUMP
(CAN) DUE TO PREVIUOS FIND OF FUEL BOOST PUMP PN 968.84.11.404 CHAFED WIRING HARNESS, THE BOOST PUMPS WEREREMOVED FOR PRECAUTIONARY INSPECTION. CHAFED WIRES ON HARNESS WERE FOUND ON THERIGHT SIDE PUMP.LH PUMP WAS OLD STYLE PUMP STILL INSTAALLED WITH HARNESS COMING OUT THE TOP OF THE PUMP. PUMP HAD 1 848.4 HOURS PUMP WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE
PILATS PWA ACCUMULATOR LEAKING 05/08/2003
PC1245 PT6A67B 9738114306 HYD SYSTEM
(CAN) DISCOVERED FAULT WAS WITH LANDING GEAR HYDRAULIC SYSTEM PRESSURE SWITCH. REPLACED DUE TO LEAK FROM ACCUMULATOR SIDE OF HYDR SYS THROUGH A VENT HOLE IN SIDE OF BODY OF SWITCH. THIS DEPLETES NITROGEN IN ACCUMULATOR, WITH LESS AIR IN ACCCUMULATOR, LANDING GEAR HYDR SYS MOTOR /PUMP WOULD RUN CONSTANTLY. PRESS SWITCH CONTROLS RELAY THAT CONTROLS HYDR MOTOR/PUMP OPERATION. RELAY'S OTHER CONTACTS CONTROL THE HYDR INTERLOCK RELAY TO PREVENT OPERATION OF VAPOR CYCLE COOLING SYS AND LANDING GEAR HYDR SYS FROM OPERATING AT SAME TIME. NO INDICTION OF ANY DEFECT WITH LANDING GEAR SYS ,NO WARNING LIGHTS IN COCKPIT. UPON REPLACEMENT OF PRESSURE SWITCH AND LANDING GEAR HYDR SYS RESERVICING ALL SYSTEMS OPERATED NORMALLY
PILATS PWA WIRE HARNESS SHORTED 04/24/2003
PC1245 PT6A67B 30600003 PROPELLER
(CAN) WHILE IN FLIGHT, THE (DE-ICE CAUTION) AMBER CAUTION LIGHT ILLUMINATED AND THE GREEN (PROP DE-ICE) WAS FLASHING. AFTER INVESTIGATING THE PROBLEM. THE WIRE THAT WAS PROVIDING HEAT TO THE DE-ICE WAS ALREADY REPLACED. 2 BARE HEATING WIRRES ON THE INTERIOR OF THE DE-ICER BUNDLES WERE TOUCHING CAUSING A SHORT, THE CAUTION LIGHTS THEN WOULD ILLUMINATE. ONCE WIRE BUNDLE (3E2360-4) WAS REPLACED, THE SYSTEM WORKED CORRECTLY.
PILATS PWA STATIC LINE FAILED 05/16/2003
PC1245 PT6A67B PC1245 NR 2 SYSTEM
(CAN) AIRCRAFT WAS AT CRUISE FLIGHT (28,000 FT) AND AUTOPILOT BEGAN TO CLIMB. AUTOPILOT WAS DISENGAGED AND AIRCRAFT LEVELED OFF. NR 1 ALTIMETER AND AIRSPEED BEGAN TO RAPIDLY MOVE TO ZERO. CREW DESCENDED AND LANDED AT NEXT AVAILABLE AIRPORT AS NR 2 SYSTEM FUNCTIONED NORMALLY. AIRCRAFT WAS FLOWN VFR BACK TO MAINTENANCE BASE WHERE NR 1 STATIC LINE WAS FOUND PULLED OUT OF TEE FITTING IN CABIN SIDEWALL. LINE WAS TOO SHORT AND HAD BEENN FORCED INTO PLACE. LINE REPLACED AND REINSTALLED AND TESTED.
PIPER LYC STITCHING BROKEN 05/23/2003
PA1815 O320A2B RT WING RIBS
(CAN) RIB STICHING BROKEN MOST RIBS RT WING RECORDS. ONLY GO BACK TO 1978 NO RECORD OF REPLACEMENT AT THAT TIME. FABRIC TESTED GOOD. (WING RESTITCHED.)
PIPER LYC PLACARD MISSING 05/01/2003
PA20 O290 FUSELAGE
DURING ANNUAL INSPECTION IT WAS DISCOVERED THAT THE ORIGIONAL MFG DATA TAG WAS NOT ON THE AIRCRAFT. USUALLY LOCATED ON THE FLOORBOARD NEAR THE BATTERY BOX. A HANDMADE TAG WAS FOUND RIVETED TO THE FIREWALL. MFG RECORDS INDICATE THAT THE CCORRECT FUSELAGE SERIAL NR MATCHES THE LOGBOOK AND HANDMADE TAG. A NEW TAG WILL BE ORDERED FROM MFG AT AN INFLATED PRICE.
PIPER LYC SPRING FAILED 04/14/2003 903
PA20 O360* 6010532 RUDDER RETURN
DURING TAXI TO POSITION FOR TAKEOFF, THE RIGHT RUDDER RETURN SPRING FAILED AT THE ATTACHMENT HOOK TO THE CABLE BELLCRACK. THE PILOT HEARD A NOISE BUT DID NOT REALIZE THE SPRING HAD FAILED UNTIL LATE IN THE ROLLOUT. THE FLIGHT CYCLE WAS COOMPLETED WITHOUT EVENT. ABOVE NORMAL RIGHT RUDDER PRESSURE WAS REQUIRED TO CORRECT YAW. PART FAILURE APPEARS TO BE THE RESULT OF FATIGUE.
PIPER LYC YOKE CRACKED 04/22/2003 3428
PA2425 O540* COCKCPIT
DURING ANNUAL INSPECTION, OWNER REQUESTED YOKES BE CHANGED. BOTH YOKES WERE FOUND TO BE CRACKED ON THE LOWER SIDE, THROUGH THE HOLE FOR THE ROLL PIN. THE CONDITION WAS NOT VISIBLE WIGHOUT REMOVING EMBLEM AND YOKE, AS PLASTIC COATING ON YOOKE EXTERIOR HAD NOT CRACKED EVEN THOUGH ALUMINUM YOKE BENEATH WAS CRACKED FULLY THROUGH. IF YOKES ARE REMOVED OR EMBLEM IS REMOVED LOOK HARD FOR CRACKS IN LINE WITH ROLL PIN HOLE.
PIPER LYC CONTROL FRAYED 05/09/2003 5503
PA2523 O540* ELEVATOR
ELEVATOR UP CABLE FOUND TO HAVE NUMEROUS STRANDS BROKEN WHERE CABLE GOES THROUGH FAIRLEAD IN FUSELAGE AFT TAIL AREA NEAR HORIZONTAL STABILIZER LEADING EDGE / BATTERY AREA. WAS FOUND BY FAA DURING CERTIFICATION OF 137 OPERATOR.
PIPER CONT TRUNNION CRACKED 05/02/2003
PA28R2 IO360* 67054003 NLG
(AUS) NOSE LANDING GEAR UPPER TRUNNION CRACKED AT DRAG BRACE ATTACHMENT POINT. SUSPECT CAUSED BY EXCEEDING TURNING LIMITS DURING GROUND HANDLING.
PIPER SKIN CRACKED 05/01/2003
PA4635 LT WING 3476
DURING ANNUAL INSPECTION, TWO CRACKS WERE FOUND ON THE LOWER LEFT WING SKIN, NEAR THE LOWER SPAR CAP, OUTBOARD OF THE MAIN LANDING GEAR DOOR HINGE. BOTH CRACKS WERE LOCATED NEAR THE DOUBLER, KIT NR 766-210, PREVIOUSLY INSTALLED IAW MFG SB.. THIS AIRCRAFT HAS 4324.7 HRS TT AND 3476.3 HRS SINCE THE KIT WAS INSTALLED. INSPECTION SHOWED NO DELAMINATION OF INNER DOUBLERS. RECOMMEND INSPECTING ANNUALLY.
PIPER LYC BELLCRANK BROKEN 05/22/2003 631
PA4635 TIO540* 82905002 TE FLAP
PILOT REPORTED THAT THE AIRCRAFT ROLLED LEFT WHEN THE FLAPS WERE EXTENDED FOR LANDING REQUIRING SIGNIFICANT RIGHT AILERON INPUT TO COUNTERACT THIS FORCE. PILOT RETRACTED THE FLAPS AND NOTED THE LT FLAP REMAINED DOWN APPOXIMATELY 10 DEGREESS. PILOT COMPLETED A NORMAL LANDING. INVESTIGATION REVEALED THAT THE LEFT FLAP BELLCRANK WAS TWISTED IN TWO AT ITS MIDPOINT. BELLCRANK WAS IN COMPLIANCE WITH MFG SB 1062 AND DID NOT BREAK AT A WELD. INSPECTION OF THE RT SIDE REVEALED THAT THE PAINT WAS BROKEN IN A TWISTING DIRECTION BUT THE BELLCRANK HAD NOT SEPARATED (YET). BOTH BELLCRANKS WERE REPLACED WITH NEW PARTS. FLAP RIGGING WAS CHECKED AND FOUND OK WITH NO BINDING IN EITHER DIRECTION
ROBSIN LYC BEARING ROUGH 04/25/2003 464
R22BET O320* A1581 SPINDLE
ROTORCRAFT EXPERIENCED UNUSUAL VIBRATION. REMOVED MAIN ROTOR BLADES FOUND UPON VISUAL (BY FEEL) SPINDLE BEARINGS WERE ROUGH AND BRINELD. FACTORY STATES THIS IS CAUSED BY MAIN ROTOR OVERSPEEDS. IF AIRCRAFT/ROTORCAFT EXPERIENCES UNUSUAL VIIBRATION TO CHECK SPINDLE BEARINGS FOR CONDITION.

ROBSIN	LYC	ELECTROSYS	BEARING	FAILED	05/01/2003
R22BET	O320B2C	MAGNETO			

ENGINE WAS IN RUN UP/TEST WHEN LEFT HAND MAGNETO FAILED CHECK (DEAD MAG). MAGNETO PROBLEM WAS INVESTIGATED AND THE FOLLOWING CONDITION WAS NOTED. THREE SCREWS WERE MISSING THAT ATTACH THE LOWER AND UPPER MAIN HOUSING. TWO OF THESE SCREWSS SEEMED TO HAVE BACKED OUT AND THE THIRD BROKE WHICH LEFT A PORTION OF THE THREADED SCREW REMAINING IN THE LOWER HOUSING. THERE WERE ONLY TWO REMAINING SCREWS SECURING THE TWO HOUSINGS TOGETHER WHICH HAD STARTED TO BACK OUT. ROLLER BEARING FAILED WHICH LED TO LOWER SEAL FAILURE AND DRIVE GEAR DAMAGE DUE TO SHAFT EXCESSIVE PLAY. LOWER MAGNETO HOUSING HAS A TWO INCH CRACK ON THE BOTTOM SIDE LEFT OF PLASTIC INSPECTION PLUG.

ROBSIN	LYC	DRIVE BELT	STRETCHED	04/30/2003
R22BET	O320B2C	A1902	ENGINE/XMSN	

(AUS) ENGINE TO TRANSMISSION DRIVE BELTS STRETCHED BEYOND LIMITS.

SKRSKY	ALLSN	RING	BROKEN	05/22/2003
S76A	250C30	1737391	FUEL FILTER	

DURING FUEL FILTER CHANGE, RETAINING RING INSIDE FUEL FILTER HOUSING CAME OUT IN SEVERAL PIECES. REPLACED FILTER HOUSING AND RETAINING RING.

OMB No. 2120-0003

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MALFUNCTION OR DEFECT REPORT

OPER. Control No.	
ATA Code	
1. A/C Reg. No.	N-

Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER
2. AIRCRAFT			
3. POWERPLANT			
4. PROPELLER			

5. SPECIFIC PART *(of component)* CAUSING TROUBLE

Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.

6. APPLIANCE/COMPONENT *(Assembly that includes part)*

Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number

Part TT	Part TSO	Part Condition	7. Date Sub.

8. Comments *(Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)*

Optional Information:

Check a box below, if this report is related to an aircraft

☐ Accident; Date _____ ☐ Incident; Date _____

DISTRICT OFFICE | OPERATOR DESIGNATOR

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SUBMITTED BY:

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